Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER A. STARK,
EDWARD G. STEWART,
and
ALBERT I. EVERAERTS

Appeal No. 1998-2280
Application No. 08/514,677

ON BRIEF

Before GARRIS, KRATZ, and DELMENDO, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 through 7. Claims 8 through 16, which are the only other claims remaining

in the application,[1] have either been allowed (claims 8-11) or withdrawn from further consideration pursuant to a restriction requirement (claims 12-16). (Examiner's answer, page 2.)

The subject matter on appeal relates to a radiation-crosslinkable composition comprising (a) the recited elastomeric polymer and (b) the recited radiation-activatable crosslinking agent. Further details of this appealed subject matter are recited in illustrative claim 1, which is reproduced below:[2]

> 1. A radiation-crosslinkable composition comprising:
> (a) an elastomeric polymer containing abstractable hydrogen atoms in an amount sufficient to enable the elastomeric polymer to undergo crosslinking in the presence of a suitable radiation-activatable crosslinking agent; and
> (b) a radiation-activatable crosslinking agent of the formula:

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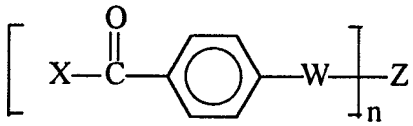
[1] In response to the final Office action of March 21, 1997 (paper 6), the appellants filed an amendment under 37 CFR § 1.116 on July 25, 1997 (paper 9), proposing the cancellation of claim 17. The examiner indicated in an advisory action dated August 19, 1997 (paper 10) that the amendment will be entered upon the filing of a notice of appeal and an appeal brief.

[2] The copy of claim 1 as found in the appendix to the appeal brief contains errors. Accordingly, we reproduce claim 1, which has not been amended, from the application as filed.

wherein:
X represents CH_{3-}; phenyl; or substituted-phenyl; or substituted-phenyl with the proviso that any substituents on the substituted-phenyl do not interfere with the light-absorbing capacity of the radiation-activatable crosslinking agent and do not promote intramolecular hydrogen abstraction of the radiation activatable crosslinking agent;
W represents -O-, -NH-, or -S-;
Z represents an organic spacer selected from the group consisting of aliphatic, aromatic, aralkyl, heteroaromatic, and cycloaliphatic groups free of esters, amides, ketones, urethanes, and also free of ethers, thiols, allylic groups, and benzylic groups with hydrogen atoms intramolecularly accessible to the carbonyl group of said radiation-activatable crosslinking agent; and

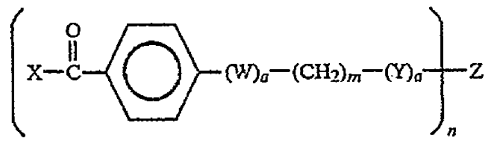


n represents an integer of 2 or greater.

The examiner relies upon the following prior art reference as evidence of unpatentability:

Everaerts et al. (Everaerts) 5,407,971 Apr. 18, 1995 (effective filing date Feb. 10, 1992)

Claims 1 through 7 stand rejected under 35 U.S.C. § 103 as unpatentable over Everaerts.[3] (Examiner's answer, pages 4-7.)



We reverse the aforementioned rejection for the reasons which follow.

Everaerts describes a radiation-crosslinkable composition comprising (a) an elastomeric polymer containing abstractable hydrogen atoms in an amount sufficient to enable the elastomeric polymer to undergo crosslinking in the presence of a suitable radiation-activatable crosslinking agent; and (b) a radiation-activatable crosslinking agent of the formula:

[3] The examiner has expressly withdrawn the rejection of claims 1-7 under 35 U.S.C. § 102(e) as anticipated by Everaerts. (Examiner's answer, p. 3.)

wherein:

W represents -O-, -N-, or -S-;

X represents CH_3- or phenyl;

Y represents a ketone, ester, or amide functionality;

Z represents a polyfunctional organic segment which does not contain hydrogen atoms that are more photoabstractable than the hydrogen atoms of the elastomeric polymer;

m represents an integer of from 0 to 6;

a represents 0 or 1; and

n represents an integer of 2 or greater. (Column 4, lines 3-28.)

Thus, the prior art composition differs from the invention recited in appealed claim 1 in terms of the radiation-activatable crosslinking agent. To account for this difference, the examiner has taken the position that one of ordinary skill in the art would have arrived at the here claimed subject matter by selecting a crosslinking agent from Everaerts' formula such that the subscript "a" in "$(W)_a$," the subscript "m" in "$(CH_2)_m$," and the subscript "a" in "$(Y)_a$," are 1, 0, and 0, respectively. (Examiner's answer, page 4.) In

other words, the examiner believes that Everaerts suggests a compound in which "a" is different, i.e. "a" is both 1 and 0 for the same compound.

We cannot agree with the examiner's analysis. Specifically, the examiner has not pointed to any evidence that would indicate to one of ordinary skill in the art that Everaerts' crosslinking agent may contain the "W" moiety while, at the same time, lack the "Y" moiety. In fact, Everaerts appears to suggest exactly the opposite. Specifically, Everaerts teaches the same value for both subscripts "a" in the structures for the preferred crosslinking agents. (Column 4, lines 36-67.)

The examiner argues that "[t]here is no statement [in Everaerts] that [the] value of 'a' must be identical for each segment '$(Y)_a$' and '$(W)_a$'." (Examiner's answer, page 5.) However, this argument does not make up for the lack of a specific motivation, teaching or suggestion in the applied prior art reference to arrive at the appellants' claimed invention. In this regard, we share the appellants' view (appeal brief, pages 6-7) that, if Everaerts is in fact teaching that the values for the two "a" subscripts could be

different for a given compound, the reference would define each subscript "a" separately or would indicate that the value of "a" is "independently 0 or 1."

The examiner also contends that "[i]f 'a' could be 0 or 1, but had to be the same, it is clear that the presence or absence
of either 'W' or 'Y' is not critical in the formula disclosed in [Everaerts]." (Examiner's answer, pages 5-6.) The examiner thus concludes that "one skilled in the art would have expected that compounds with 'a' being 1 for one of 'W' or 'Y' and zero for the other would behave similarly as crosslinking agents to compounds with subscripts 'a' for both 'W' and 'Y' equal to 1 or to zero." (Id. at page 6.) The weakness in this argument, however, is that there is no teaching or suggestion in Everaerts of a crosslinking agent which contains a "W" moiety but, at the same time, lacks a "Y" moiety. In the absence of such a teaching or suggestion, one of ordinary skill in the art would have selected a compound that (i) does not contain "W" and "Y" or (ii) a compound that contains both "W" and "Y."

For these reasons, we hold that the applied prior art reference does not establish a prima facie case of obviousness against appealed independent claim 1 within the meaning of 35 U.S.C. § 103. Since appealed claims 2 through 7 all directly or indirectly depend from claim 1, it follows that the subject matter of these dependent claims would also not have been prima facie obvious over the applied prior art references. In re Fine, 837 F.2d 1071, 1076, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988).

The decision of the examiner is reversed.

REVERSED

BRADLEY R. GARRIS)

Administrative Patent Judge	)
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	) BOARD OF PATENT
PETER F. KRATZ	) APPEALS
Administrative Patent Judge	) AND
	) INTERFERENCES
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ROMULO H. DELMENDO	)
Administrative Patent Judge	)

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